Work Order  July-23-13 1:13:		105113	n 2 <b>0</b>	12-106	*	10	511	13*	***					Page 1
Item ID: I	D2012-1	06	_	05113	Accept		*	<b>1900</b>	040	100	<b>)*</b> s	etup Start	*N	S1*
•	Arm		· Standard Company	•								Stop	*N	S2*
Start Date: 7 Required Date: 7	7/23/13 7/23/13		ty: 20.00 Qty: 20.00	*20* *20*				Cust Item 1 Customer:					<i>y</i>	
Reference:						<u>.</u>					D	un Start	.9. B. II	<b>—</b> 4 4
Approvals:	Process	Plan:M		Date: 13-07-Z	Y Toolin	g:		D	ate:		N		1/1	R1*
	QC:			Date:	_ SPC (Y	// <b>N</b> ):		D	ate:			Stop	*N	R2*
Sequence ID/ Work Center ID	•	Operati Descrip			Set Run	Up/ Hours		Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr		Revision Nbr						Ŷ.						
D2012-106		A		,				*-			٠			
100 *100* Brake NC	·	NC BRAI	KE Memo	,	0.00				* .		20	SAC	)_134	0-17
Brake NC			Punch to len	gth as per Dwg D2012-1			06T1				`,			
			( <b>)</b>	4	32	.15			•					
110					0.00						•			
*110* Small Fab Small Fab		Small Fab	Memo 1-Deburr	÷	0.00			•		·	_2(	SAD	13-	10-17
120		QC5- Insp	ect part compl	eteness to step on W/O	0.00	DAS 27 9-89					0.			
*120* QC Quality Control			Memo		0.00	1	18				2)_			

									DQA:	Date	:
NCR: Y	es / No				WORK ORDER NON-C	ONFOR	MANCE / UP	DATE	QA Closed:	Date	
		-			I .			13 - 12 (3		Date	•
Work Orde	,				DISPOSITION			AGAINST DE		/PROCESS	
WOIK OIGE					Rework		Skid-tube	Crosstube	]	Water Jet	Engineering
Part N	lo.				Scrap		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is		moforming	Finishing	-1	re/Packaging	Other
NCR N	lo.				Work Order Update		Large Fab	Composite		Supplier	
									_		
Root				1	ption of work order update	Initial		tion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling	_										
Operator											· .
Material	_										
Setup											
Other			·								·
Process											
Supplier	_	1	ļ	<u> </u>				· ·			
Training	_	]		'							,
Unapproved		l					<u> </u>	_	<u> </u>		
						AULT CATE	GORY	•			<del></del>
Landir	ng Gear			Γ	General			· [-	Ovalized		70,,,,,,,,
}	Bending	- <b>.</b> C		0/6	Bend BOM/Route	Grain		$\vdash$	Ovalized Over/Under	tolorones	Pressure/Forced Temperature/Cure
,	Centre No	ot Conce	ntric to	<sup>0/3</sup>  -	<del> </del>	Hardw			1	<del> </del>	Weld
}	Cracks	Crimonad		-	Broken/Damaged		tion Incomplete	/Hadoor	Part Incorre	<u> </u>	Wrong Stock Pulled
}	Crushed/ Cuffs	сппреа			Burrs	_	tions Incomplete/ enance	Unclear	Part Lost/M Part Moved	ISSHIR	Typical Stock Lailed
}	<del></del> i			, <u> </u>	Countarion	<del></del>		·	-{	Vrong	
	Heat Trea		Ťuba :	,	Countersink	Mislab		<b> </b>	Positioned V Power Loss/	_	Other
	Inspectio		rube <sub>»</sub> .	ļ	Cut Too Short	Misrea	u		Jrower Loss/	onike [	Tottler
1	Ripples in	i bena			Drill Holes	Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

Work Orde July-23-13 1:13		5113		*	105	113*							Page 2	2
Revision ID:	D2012-106 Arm			Accept		*N900	<b>040</b>	100	)*	Setup	Start Stop	1 41	S1* S2*	
Start Date: Required Date: Reference:	7/23/13 7/23/13	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*			Cust Item I Customer:	D:							
Approvals:	Process Pla	in: :	Date:	Tooling SPC (Y			ate:			Run	Start Stop		R1* R2*	
Sequence ID/ Work Center II  130  *120* Powdercoat  Powder Coating	)	Operation Description Black Sandtex(Ref.4.3.5  Memo START TIM OVEN TEM FINISH TIM	E: <b>19.</b> 35 PERATURE: 30	Set U Run 0.00 0.00	Up/ Hours	Tool ID	Tool #	Plan Code	Accep Qty	Qty	7 <b>.</b> .	Reject Number /3-/0-	Insp. Stamp	DAS 34 9-89
*140 *140* QC Quality Control		QC3- Inspect Part Finish  Memo		0.00	0AS 27 9-89 13_100	1			<u> </u>		· · · · · · · · · · · · · · · · · · ·			
150 *150* Packaging	·	Identify as per dwg & Sto	ock Location(19x)512 2×PPP 1057						21	D. X 2 9-	AS 28 89	13- k	5-21	

Packaging

										DQA:	Date:	
NCR: Y	Yes	/ No			WORK	ORDER NON-C	CONFORI	MANCE / UF	PDATE			
										QA Closed:	Date:	
Work Orde	er:				DI	SPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N	- No				Work	Rework Scrap Use-as-is Order Update		Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root	T				Description of wor	k order update	Initial	Α.	ction	Sign &		
Cause		Date	Step	Qty	or Non-conf	ormance	Chief Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material	Ш										ĺ	
Setup												
Other			<u> </u>					į		ļ		
Process												
Supplier												
Training			1									
Unapproved			L									***
						F.	<b>AULT CATE</b>	GORY				
Landi	ng G	ear			G	eneral				-	_	

Pressure/Forced Bending Bend Grain Ovalized Centre Not Concentric to O/S BOM/Route Hardware Over/Under tolerance Temperature/Cure Weld Cracks Broken/Damaged Inspection Incomplete Part Incorrect Wrong Stock Pulled Instructions Incomplete/Unclear Part Lost/Missing Crushed/Crimped Burrs Maintenance Part Moved Cuffs Contamination Mislabeled Positioned Wrong Heat Treat Countersink Misread Power Loss/Surge Other Inspection Strip in Tube Cut Too Short Ripples in Bend Drill Holes Offset Drawing Out of Calibration Torque Waves in Extrusion Out of Sequence Turning Sequence Finish Folio Outside Dimensions Wave/Twist in Tube

Work Orde July-23-13 1:13		95113		*10!	5113*						Page 3
Item ID: Revision ID:	D2012-106			Accept	*N900	<b>040</b>	100	)* S	Setup Star Stop	IA	S1* S2*
Item Name: Start Date: Required Date: Reference:	Arm 7/23/13 7/23/13	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*		Cust Item I Customer:	ID:					<b>.</b>
Approvals:	Process Pla	an:	Date:	Tooling: SPC (Y/N):		ate:		F	Run Star Stop	, "I <b>V</b> I	R1* R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty /	Reject Qty	Reject Number	Insp. Stamp
*160 *160*		QC21- Final Inspection -	Work Order Release	0.00			A	-/R-1	m 13/1	0/23 .	

Quality Control

Offer Way

						•			DQA:	Date:	*
NCR: Y	es / N	<b>0</b>			WORK ORDER NON-C	CONFOR	MANCE / UPD	ATE	OA Classel	Data	
on the second of	Angel er e	* **.=			I				QA Closed:	Date:	<u>.                                    </u>
Work Orde					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
WOIK OIGE	···	·		· · · · · · · · · · · · · · · · · · ·	Rework	}	Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	lo.				Scrap		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
				· · · · · · · · · · · · · · · · · · ·	Use-as-is		noforming	Finishing	4	re/Packaging	Other
NCR N	lo	<u> </u>			Work Order Update		· —	Composite		Supplier	
Root				Descri	ption of work order update	Initial	Actio	on	Sign &		
Cause	Dat	e Step	Qty		or Non-conformance	Chief Eng	Descrip	otion	Date	Verification	QC Inspector
Doc/Data					•						
Equip/Tooling											·
Operator			]								
Material		Ì								·	
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											<u> </u>
					F	AULT CATE	GORY				
Landir	ng Gear			_	General				7		7
	Bendi	_		_	Bend	Grain		ļ	Ovalized		Pressure/Forced
	Centro	Not Conce	ntric to	o/s	BOM/Route	Hardwa			Over/Under	<del></del>	Temperature/Cure
	Cracks				Broken/Damaged	<b></b>	ion Incomplete	<u> </u>	Part Incorre	<del>                                     </del>	Weld
		ed/Crimped		L	Burrs	_	ions Incomplete/Un	nclear	Part Lost/Mi	issing	Wrong Stock Pulled
	Cuffs				Contamination •	Mainte			Part Moved		
	Heat 1	reat			Countersink	Mislabe	eled		Positioned V		7
	Inspec	tion Strip ir	Tube		Cut Too Short	Misread	d		Power Loss/	Surge	Other
	Ripple	s in Bend			Drill Holes	Offset					

Out of Calibration
Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

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## -Picklist Print

July-23-13 1:13:22 PM

Work Order ID:

105113

Parent Item:

D2012-106

Parent Item Name:

Arm

**Start Date:** 7/23/13

Required Date: 7/23/13

**Start Qty: 20.00** 

Required Qty: 20.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of . Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>M304TR0.500W.035</b> 304 RD Tube .500 x .035	w	Purchased	No			100	f	511.0691	2.651	55.810520 SAD1	5 3 <u>-10-</u>	<b>4</b> 7	· · · · · · · · · · · · · · · · · · ·
				<b>Location</b>		Loc Oty	Lo	c Code					
				MAT017		511.06913							
				118	702	0.00003							
				123	303	138.9645		100					
					513	372.1046	쉳	412692	<u> 5</u>	5.81.06			

NCR:	Yes	/	No	

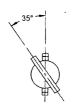
DQA:

Date:

NCR: Y	es / No	*.			WORK ORDER NON-	-COr	NFORI	VIANCE / UF	DATE	QA Closed:	Date:	•
Work Orde	ŕ·				DISPOSITION				AGAINST DI	PARTMENT	/PROCESS	
Part N					Rework Scrap Use-as-is		ſ	Skid-tube Machining noforming	Crosstube Small Fab Finishing	-1	Water Jet d. Eng. Coor.	Engineering Quality Other
NCR N	0				Work Order Update			Large Fab	Composite	]	Supplier	
Root				Desci	ription of work order update	$\top$	nitial	A	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data		1										
quip/Tooling	_											
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Material	_					ŀ						
Setup												
Other	_	-				- [	•					
Process								:				
Supplier Fraining	-					-						
Jnapproved	-											
onapproved 1		<u> </u>	<u> </u>	!		FAUL	T CATE	GORY	· · · · · · · · · · · · · · · · · · ·	<u></u>		
Landin	g Gear				General							,
Γ	Bending			Γ	Bend		Grain			Ovalized		Pressure/Forced
	Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorred	t 🗌	Weld
[	Crushed	Crimped			Burrs		Instruct	ions Incomplete	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
[	Cuffs				Contamination		Mainte	nance		Part Moved		
	Heat Tre	at			Countersink		Mislabe	led		Positioned V	/rong	
[	Inspection	n Strip in	Tube		Cut Too Short		Misread	1		Power Loss/	Surge	Other
	Ripples i	n Bend			Drill Holes		Offset					
	<del></del>	Vaves in E		n L	Drawing		ł	Calibration				-
		Sequence		L	Finish	_	i	equence				
	Wave/Tv	vist in Tul	эе		Folio		Outside	Dimensions				•

SHOPE KC × SO **ENGINEERING** UNCONTROL AND COPY SUBJECT TO AND EDIMENT WEHOLD TO C. WORK ON JUST 13-07-24

0.75 REF \_Ø0.500 REF Ø0.257 D2012-106 ARM



UIES:

MATERIAL: AISI 304/316 SS TUBE Ø0.500 X 0.035 WALL PER ASTM A213/A269 OR ASME A213 (REF DART SPEC. M304TR0500W.035)

FINISH: POWDER COAT "BLACK SANDTEX" (4.3.5.7) PER DART QSI 005 4.3

TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

UNITS: INCHES UNLESS OTHERWISE NOTED

BREAK SHARP EDGES: 0.005 TO 0.010 MAX

IDENTIFICATION: DIENTIFY WITH DART PN "D2012-106" AND B/N "BXXXXX"

PER DART QSI 044 6.1 USING REMOVABLE TAG

WEIGHT: 0.47 LBS (APPROX)

7) WEIGHT: 0.47 LBS (APPROX)
8) PUNCH BOTH ENDS PER SPEC CONTROL DWG D2727
9) NOTE THIS IS THE LH INSTALLATION VERSION OF D2012-105

Α	NEW IS	SUE		AJS	11.07.11	i
REV.			DESCRIPTION	BY	DATE	
DESIGN	V	AJS	DART AERO	DSPACE L	חז	
DRAWN	v	AJS	HAWKESBURY.			٨
CHECK	ED	140	DRAWING NO.		REV. A	
MFG. A	PPR.	8	D2012-106		SHEET 1 OF 1	
APPRO	VED	149	TITLE		SCALE	
DE APF	PR.	#	ARM		NTS	
DATE	11.0	7.11	COPYRIGHT © 2011 B THS DOCUMENT IS PRIVATE AND COMMISENTIAL AN HOT TO BE USED FOR ANY PURPOSE OR COPYO	O IS SUPPLED ON THE EXPRESS	CONDITION THAT IT IS.	

1 \$

## **DART AEROSPACE LTD**



Description: ARM		Work Order: 105 113	
Inspection Drawing: 1)2012-166	Rev: 🐴	Part Number: 21016 - 106	

## **INSPECTION SHEET**

Drawing Dimension	Tolerance				Method of Inspection	Comments
31.90	+/_0.030	31.900	1		7	A 1234
31.06		31.090	V		$\dot{\tau}$	A 1231
0.357	+1- 0.010	0.258	~		U U	SFAB-14 SFA6-14
0.750	+1- 0.010	0.253				SFA 6-14
0.750 1633 75°	+1- 0.010 +1- 1/2	0.35	~		and meter	SFAB-05
					J .	
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					<u> </u>	

Measured by: らか	Checked By:	QC inspector:	Engineering Approval (if necessary):
Date 13/10/16	Date (3/60/16	Date	Date

